

Notice of Allowability

Application No.

10/620,879

Examiner

Kanji Patel

Applicant(s)

AKIMOTO ET AL.

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/15/03.
2. ☒ The allowed claim(s) is/are 1.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>5/4/05</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Information Disclosure Statement

1. Information Disclosure Statement submitted on 5/4/05 has been considered by the examiner.

Drawings

2. Drawings submitted on 7/15/05 have been approved by the examiner.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed.

The prior art on record fails to teach or fairly suggest, singly or in any combination, for motion compensation for a video sequence having original frame and plurality of predicted frames, comprising among other things, "determining the bit mask number for each four by four element block in the compact error data array; placing the bit mask number into a bit mask number array; determining the value of each four by four element block in the compact error data array; placing the value of each four by four block from the compact data array into a new compact data array; removing all of the outermost rows and columns of the new compact data array that contain only zero elements; selecting geometric figures from group of geometric figures having pre-defined values; constructing the geometric figures around the largest possible areas in the new compact error data array that contain only zero elements; determining the smallest combination of geometric figures to use for the new compact error data array; recording the figure value, the center coordinates of the figure, and the figure

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dimensions into a figure data array; removing all zero elements that are covered by a geometrical figure from the new compact data array S. separating the new compact data array into a B array, which is a bit array that reflects the allocation of non zero elements in the new compact data array, and an EI array that contains the values of non zero elements in the new compact data array; separating the EI array into an Abs array that contains the absolute value of the elements in the EI array and an S array, which is a bit array that contains the sign of the elements in the EI array; encoding the B array, the Abs array, and the S array using run-length-encoding techniques; decoding the arrays; and compensating for the predicted error while the arrays are decoded by adding the stored prediction error values to the predicted frame."

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Keller et al. (US 7,023,924 B1) disclose a method of pausing an MPEG coded video stream.

Oguz et al. (US 6,871,006 B1) disclose a processing of MPEG encoded video for trick mode operation.

Lee et al. (US 5,748,789) disclose a transparent block skipping in object based video coding systems.

Wise et al. (US 6,697,930 B2) disclose a multistandard video decoder and decompression method for processing encoded bit streams according to respective different standards.


Obikane et al. (US 5,504,530) disclose an apparatus and method for coding and decoding image signals.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (571) 272-7454. The examiner can normally be reached on Monday to Thursday from 8 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bella, Matthew can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kanji Patel
Art Unit 2624
9/29/06


KANJIBHAI PATEL
PRIMARY EXAMINER